

IN THE CLAIMS:

1 1-25. (CANCELLED)

1 26. (PREVIOUSLY PRESENTED) A method for operating a router, comprising:

2 receiving a first message from a client, the first message directed to a server to
3 request a traffic flow from the server to the client;

4 determining a sequence number of the first message;

5 reading a second message from the server in order to determine if the message is a
6 response to the first message, and determining if the second message is a response to the
7 first message by checking a sequence number in the second message;

8 reading from the first message and the second message at least one parameter of
9 the traffic flow, the traffic flow requested by the client for the server to transmit to the
10 client;

11 writing the at least one parameter into a resource reservation request message
12 (RSVP request message);

13 transmitting, in response to the second message, the RSVP request message to the
14 client, the RSVP message establishing a path to the client;

15 receiving a RSVP reply message from the client, the RSVP reply message reserv-
16 ing resources for the requested traffic flow;

17 receiving a data message of the traffic flow from the server; and

18 transmitting the data message of the traffic flow with a resource reservation indi-
19 cia in the data message, the resource reservation indicia to direct the data message to
20 travel along the reserved resources.

1 27. (PREVIOUSLY PRESENTED) The method of claim 26, further comprising:

2 using a Resource reSerVation (RSVP) protocol to learn the contents of messages
3 received by the router.

1 28. (PREVIOUSLY PRESENTED) The method of claim 26, further comprising:
2 connecting the router one hop away from the server.

1 29-32. (CANCELLED)

1 33. (PREVIOUSLY PRESENTED) A router, comprising:
2 means for receiving a first message from a client, the first message directed to a
3 server to request a traffic flow from the server to the client;
4 means for determining a sequence number of the first message;
5 means for reading a second message from the server in order to determine if the
6 message is a response to the first message, and determining if the second message is a
7 response to the first message by checking a sequence number in the second message;
8 means for reading from the first message and the second message at least one pa-
9 rameter of the traffic flow, the traffic flow requested by the client for the server to trans-
10 mit to the client;
11 means for writing the at least one parameter into a resource reservation request
12 message (RSVP request message);
13 means for transmitting, in response to the message the RSVP request message to
14 the client, the RSVP message establishing a path to the client;
15 means for receiving a RSVP reply message from the client, the RSVP reply mes-
16 sage reserving resources for the requested traffic flow;
17 means for receiving a data message of the traffic flow from the server; and
18 means for transmitting the data message of the traffic flow with a resource reser-
19 vation indicia in the data message, the resource reservation indicia to direct the data mes-
20 sage to travel along the reserved resources.

1 34. (PREVIOUSLY PRESENTED) The router of claim 33, further comprising:
2 means for using a Resource reSerVation (RSVP) protocol to learn the contents of
3 messages received by the router.

1 35. (PREVIOUSLY PRESENTED) The router of claim 33, further comprising:
2 means for connecting the router one hop away from the server.

1 36. (PREVIOUSLY PRESENTED) A method, comprising:
2 receiving a first message from a client, the first message directed to a server to re-
3 quest a traffic flow stream from the server to the client;
4 determining a sequence number of the first message;
5 receiving a second message from the server;
6 checking a sequence number in the second message to determine that the second
7 message is a response to the first message;
8 reading characteristics from the first message and the second message to identify
9 the stream from the server to the client;
10 snooping the second message to determine a bandwidth of the stream; and
11 reserving resources within a computer network on behalf of the server for alloca-
12 tion to the stream.

1 37. (CANCELLED)

1 38. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:
2 defining the first message as a Real Time Streaming Protocol (RTSP) request
3 message.

1 39. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:
2 defining the second message as an RTSP response message.

1 40. (PREVIOUSLY PRESENTED) A router, comprising:
2 means for receiving a first message from a client, the first message directed to a
3 server to request a traffic flow stream from the server to the client;

4 means for determining a sequence number of the first message;
5 means for receiving a second message from the server;
6 means for checking a sequence number in the second message to determine that
7 the second message is a response to the first message;
8 means for reading characteristics from the first message and the second message
9 to identify the stream from the server to the client;
10 means for snooping the second message to determine a bandwidth of the stream;
11 and
12 means for reserving resources within a computer network on behalf of the server
13 for allocation to the stream.

1 41. (CANCELLED)

1 42. (PREVIOUSLY PRESENTED) The router of claim 40, further comprising:
2 means for defining the first message as a Real Time Streaming Protocol (RTSP)
3 request message.

1 43. (PREVIOUSLY PRESENTED) The router of claim 40, further comprising:
2 means for defining the second message as an RTSP response message.

1 44. (PREVIOUSLY PRESENTED) A router, comprising:
2 a packet frame receiver configured to receive a first message from a client, the
3 first message directed to a server to request a traffic flow stream from the server to the
4 client;
5 the packet frame receiver further configured to receive a second message from the
6 server;
7 a traffic scheduler configured to determine a sequence number of the first mes-
8 sage, and to check a sequence number in the second message to determine that the second

9 message is a response to the first message, and to read characteristics from the first mes-
10 sage and the second message to identify the stream from the server to the client;
11 a packet classification engine configured to snoop the second message to deter-
12 mine a bandwidth of the stream; and
13 a resource reservation protocol (RSVP) transmitter proxy configured to reserve
14 resources within a computer network on behalf of the server for allocation to the stream.

1 45. (CANCELLED)

1 46. (PREVIOUSLY PRESENTED) The router of claim 44, further comprising:
2 the first message is further defined as a Real Time Streaming Protocol (RTSP)
3 request message.

1 47. (PREVIOUSLY PRESENTED) The router of claim 44, further comprising:
2 the second message is further defined as an RTSP response message.

1 48-49. (CANCELLED)

1 50. (PREVIOUSLY PRESENTED) Software encoded in one or more computer readable
2 media and when executed operable to:
3 receive a first message from a client, the first message directed to a server to re-
4 quest a traffic flow stream from the server to the client;
5 determine a sequence number of the first message;
6 receive a second message from the server;
7 determine that the second message is a response to the first message by compari-
8 son of a sequence number in the second message to the sequence number of the first mes-
9 sage;
10 read characteristics from the first message and the second message to identify the
11 stream from the server to the client;

12 determine a bandwidth of the stream; and
13 reserve resources within a computer network on behalf of the server for the
14 stream.

1 51. (PREVIOUSLY PRESENTED) The router of claim 44, wherein the RSVP transmit-
2 ter proxy is further configured to generate and send one or more RSVP Path messages on
3 behalf of the server, the RSVP path messages containing the bandwidth of the stream.

1 52. (PREVIOUSLY PRESENTED) The router of claim 51, wherein the one or more
2 RSVP Path messages include a sender Tspec object containing the bandwidth of the
3 stream.

1 53. (PREVIOUSLY PRESENTED) The router of claim 44, wherein the RSVP transmit-
2 ter proxy is further configured to terminate RSVP Reservation (Resv) messages that are
3 sent to the server.

1 54. (PREVIOUSLY PRESENTED) The router of claim 44, wherein the RSVP transmit-
2 ter proxy is further configured to generate and send one or more RSVP Path Teardown
3 messages on behalf of the server, to release the reserved resourced allocated to the
4 stream.

1 55. (PREVIOUSLY PRESENTED) The router of claim 44, wherein the characteristics
2 comprise:

3 a source address;
4 a destination address;
5 a source port number;
6 a destination port numbers; and
7 a transport layer protocol.

1 56. (PREVIOUSLY PRESENTED) The router of claim 44, wherein the packet classifi-
2 cation engine is further configured to interpret the second message according to Session
3 Description Protocol (SDP).

1 57. (PREVIOUSLY PRESENTED) The router of claim 44, further comprising:
2 a session manager configured to store the characteristics and the bandwidth of the
3 stream.

1 58. (PREVIOUSLY PRESENTED) The router of claim 44, wherein the RSVP transmit-
2 ter proxy is further configured to select a Differentiated Services Codepoint (DSCP)
3 value based on the bandwidth of the stream.

1 59. (PREVIOUSLY PRESENTED) The router of claim 58, wherein the RSVP transmit-
2 ter proxy is further configured to load the DSCP value into a RSVP Path message gener-
3 ated and sent on behalf of the server.

1 60. (PREVIOUSLY PRESENTED) The method of claim 36, wherein the step of reserv-
2 ing resources within a computer network further comprises:
3 generating and sending one or more RSVP Path messages on behalf of the server,
4 the one or more RSVP path messages containing the bandwidth of the stream.

1 61. (PREVIOUSLY PRESENTED) The method of claim 60, wherein the one or more
2 RSVP Path messages include a sender Tspec object containing the bandwidth of the
3 stream.

1 62. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:
2 terminating one or more RSVP Reservation (Resv) messages that are sent to the
3 server.

1 63. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:
2 generating and sending one or more RSVP Path Teardown messages on behalf of
3 the server, to release the reserved resourced allocated to the stream.

1 64. (PREVIOUSLY PRESENTED) The method of claim 36, wherein the characteristics
2 comprise:
3 a source address;
4 a destination address;
5 a source port number;
6 a destination port numbers; and
7 a transport layer protocol.

1 65. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:
2 interpreting the second message according to Session Description Protocol (SDP).

1 66. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:
2 storing the characteristics and the bandwidth of the stream in a data structure.

1 67. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:
2 selecting a Differentiated Services Codepoint (DSCP) value based on the band-
3 width of the stream.

1 68. (PREVIOUSLY PRESENTED) The method of claim 67, further comprising:
2 loading the DSCP value into a RSVP Path message generated and sent on behalf
3 of the server.